

YOGURT, THE SIGNATURE OF A HEALTHY DIET AND LIFESTYLE?

Yogurt is commonly recognized as a healthy food and is part of the diet of many people worldwide. Current research shows that yogurt consumption can be viewed as a signature of a healthy diet and lifestyle. These findings were highlighted in the workshop entitled “**Yogurt consumption benefits: global findings & perspectives**” led by the Yogurt in Nutrition Initiative for a Balanced Diet (YINI) held on October 22 during the 12th FENS European Nutrition Conference.

Chaired by Prof. Raanan Shamir (Faculty of Medicine, Tel Aviv University, Israel) and Prof. Andrew Prentice (MRC International Nutrition Group, London School of Hygiene & Tropical Medicine, UK), the speakers reviewed the **latest research findings on the potential benefits of yogurt consumption on the nutritional quality of the diet, on maintaining a healthy body weight as well as on reducing the risk of developing Type 2 diabetes.**

Dr. Angelo Tremblay (PhD at the Department of Kinesiology, Laval University, Canada) presented an overview of key findings from observational cohort studies conducted on different continents (North & South America and Europe). These findings tend to show that **yogurt consumption is associated with a healthy eating pattern and lifestyle.** What data supports this conclusion?

- Concerning nutritional content? Yogurt consumers have a greater intake in key nutrients, such as minerals (calcium, potassium, magnesium, zinc), vitamins (vitamin B2, B12, D) and protein, as well as a lower intake of total and saturated fat^{1,2}, compared to non-consumers.
- About food intake? Among children, frequent yogurt consumers have significantly better diet quality than infrequent consumers do. Specifically, they consume more fruit, whole grains, and milk, indicating a better compliance to the dietary guidelines³.
- About eating behaviors? Yogurt consumers tend to eat less fast food, French fries and fried foods, processed and red meats, pizza, snacks, regular soft drinks or alcohol⁴.

These results suggest that yogurt consumption is associated with an improved diet quality.

Next, **Dr. Richard Atkinson** (Physician at the Department of Pathology, Virginia Commonwealth University, US) discussed findings of a recent systematic review⁵ investigating in particular the association between yogurt consumption and weight gain. A review of seven cross-sectional studies that included more than 14,000 participants showed a beneficial association of yogurt consumption on one or more body weight/composition measures (body weight, BMI, percent body fat, percent lean body mass, waist circumference or composite measures of the above weight-related outcomes). **Regular yogurt consumption was associated with less weight gain over time, which resulted in a better BMI^{5,6}. More specifically, individuals who ate yogurt regularly - at least 7 servings per week - had at least a 20% lower risk of becoming overweight or obese⁷. Based on these facts, Dr. Atkinson concluded that the evidence is suggestive that yogurt as part of a weight maintenance or weight loss program will have a benefit.**

Lastly, Dr. Jordi Salas-Salvadó (PhD Human Nutrition at the Faculty of Medicine and Health Sciences, Rovira i Virgili University, Spain) focused on the potential role of yogurt consumption in the

¹Keast DR, *et al.* Associations between yogurt, dairy, calcium, and vitamin D intake and obesity among U.S. children aged 8-18 years: NHANES, 2005-2008. *Nutrients* 2015; 7(3):1577-93.

²Wang H, *et al.* Yogurt consumption is associated with better diet quality and metabolic profile in American men and women. *Nutr Res* 2013; 33(1):18-26.

³Zhu Y, *et al.* The associations between yogurt consumption, diet quality, and metabolic profiles in children in the USA. *Eur J Nutr* 2015; 54(4):543-50.

⁴Cormier H, *et al.* Association between yogurt consumption, dietary patterns, and cardio-metabolic risk factors. *Eur J Nutr* 2015 Mar 15.

⁵Eales J, *et al.* Is consuming yoghurt associated with weight management outcomes? Results from a systematic review. *Int J Obes (Lond)*. In press.

⁶Mozaffarian D, *et al.* Changes in diet and lifestyle and long-term weight gain in women and men. *N Engl J Med* 2011; 364(25):2392-404.

⁷Martinez-Gonzalez MA, *et al.* Yogurt consumption, weight change and risk of overweight/obesity: the SUN cohort study. *Nutr Metab Cardiovasc Dis* 2014; 24(11):1189-96.

prevention of type 2 diabetes (T2D). He reviewed recent published evidence supporting that frequent yogurt intake is consistently and negatively associated with the risk of T2D in young, middle-aged as well as elderly individuals and that this association was independent of the fat content of the diet^{8,9}. For example, a 17% lower reduction in diabetes incidence was observed in those consuming 3 or more servings of yogurt per week⁸. Furthermore, substitutions of one serving of “unhealthy” snacks, such as combination of biscuits and chocolate or whole grain biscuits and homemade pastries, with one serving of yogurt per day was also associated with a reduction in T2D incidence⁹. **Overall, these observations suggest that regular consumption of yogurt is associated with lower risk of developing Type 2 diabetes.**

Last, but not least, recent studies, conducted in different countries on different continents, show, according to Dr. Angelo Tremblay, that yogurt consumption could also be associated with a healthier lifestyle. Indeed, adult yogurt consumers are 40% more likely to be physically active (≥ 2 h/week) and are 30% less likely to smoke than non-yogurt consumers are¹⁰. Yogurt consumers (≥ 4 times/week) have a better knowledge of the relationship between food and health than those who do not eat yogurt^{11,12}.

In summary, yogurt consumption is linked to better diet quality, better weight management, lower risk of developing diabetes, and a more active lifestyle, suggesting that regular yogurt consumption may provide many nutritional and health benefits.

About YINI

The Yogurt in Nutrition Initiative is a multi-year global, collaborative project led by the Danone Institute International in collaboration with the American Society for Nutrition and International Osteoporosis Foundation, which aims to evaluate the current evidence base on the nutritional impact of yogurt. The mission of the project is to uncover scientific data related to yogurt, stimulate new research and identify gaps in our understanding of the health effects of this food category in order to share this information with professionals and the public.

⁸ Chen M, *et al.* Dairy consumption and risk of type 2 diabetes 3 cohorts of US adults and an updated meta-analysis. *BMC Med* 2014; 12:215.

⁹ Díaz-López A, *et al.* Dairy product consumption and risk of type 2 diabetes in an elderly Spanish Mediterranean population at high cardiovascular risk. *Eur J Nutr* 2015 Feb 7.

¹⁰ D'Addezio L, *et al.* Sociodemographic and lifestyle characteristics of yogurt consumers in Italy: Results from the INRAN-SCAI 2005-06 survey. *Med J Nutrition Meta* 2015; 8(2):119-29.

¹¹ Possa G, *et al.* Probability and amounts of yogurt intake are differently affected by sociodemographic, economic, and lifestyle factors in adults and the elderly-results from a population-based study. *Nutr Res* 2015; 35(8):700-6.

¹² Fisberg M, *et al.* Lifestyle of Brazilian Adults: Consumers and non consumers of yogurt. *FASEB J* 2015; 29(1), suppl 734.12